

# X-ray emitting Cluster Around 3C401

ABELL CLASS I-II  
( $B_{99} \approx 1100 \text{ Mpc}^{1.77}$ )

$$L_x \approx 5 \times 10^{43} \text{ erg s}^{-1}$$

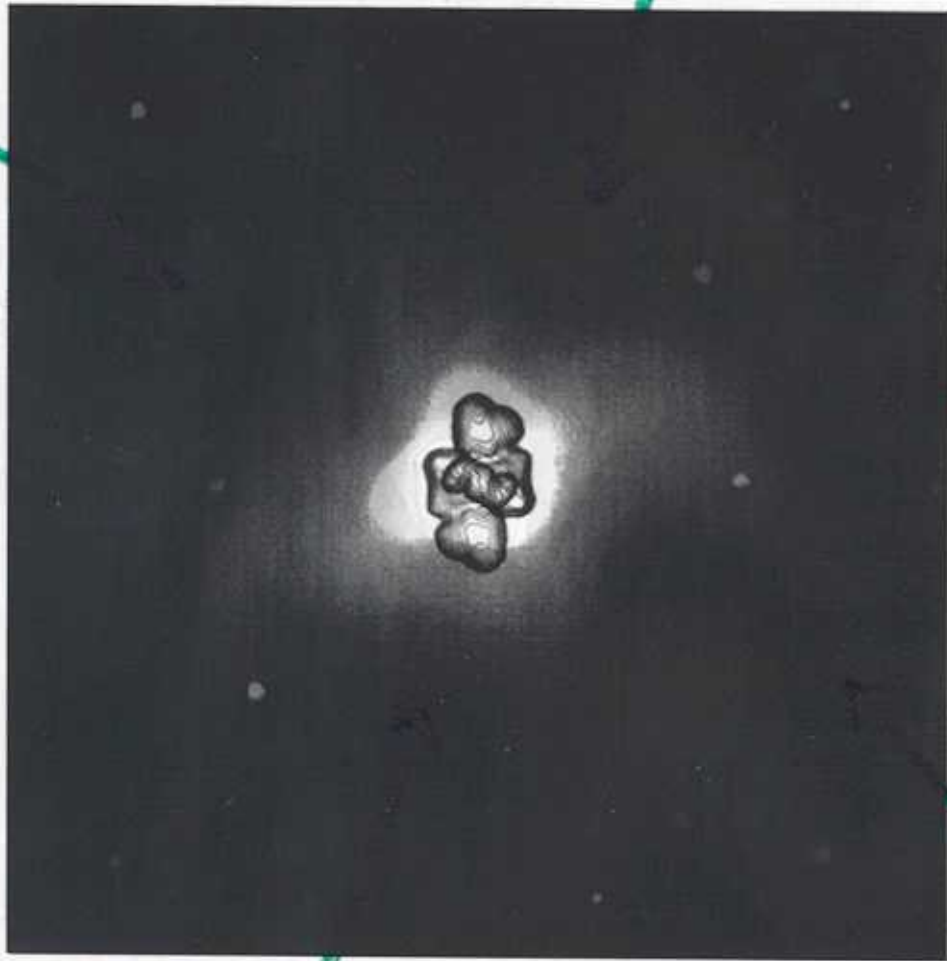
$$T_x \approx 3 \text{ keV}$$

$$z = 0.201$$

$$L_{\text{radio}} \approx 5 \times 10^{26} \text{ W Hz}^{-1}$$

FRII/FRI ?  
"FAT DOUBLE"

4 LARGE  
"HOLES"  
 $60 h_{05}^{-1} \text{ kpc}$   
IN  
RADIUS!



\* HOLES  
AT GREATER  
CLUSTER  
RADIUS &  
DIFFERENT  
POSITION  $\neq$  S  
THAN  
CURRENT  
RADIO  
OUTBURST

$L_{\text{KINETIC}} \geq 5 \times 10^{45} \text{ erg s}^{-1}$   
TO EVACUATE 2 HOLES

$L_{\text{KINETIC}} \leq 5 \times 10^{44} \text{ erg s}^{-1}$   
(JET)  
AVAILABLE IN CURRENT  
RADIO OUTBURST

- ⇒ CURRENT RADIO SOURCE CAN'T CREATE HOLES
- ⇒ PREVIOUS OUTBURST(S) MORE LUMINOUS, LARGER
- ⇒ SUPPORTS EVOLUTIONARY THEORY OF QUASARS.